

**IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF NEW YORK**

INTERNATIONAL BUSINESS
MACHINES CORPORATION,

Plaintiff,

v.

PLATFORM SOLUTIONS, INC. and T3
TECHNOLOGIES, INC.,

Defendants and
Counterclaim-Plaintiffs.

06-cv-13565 (CLB) (MDF)

JURY TRIAL DEMANDED

REDACTED VERSION

(electronically filed)

**DEFENDANT AND COUNTERCLAIMANT PLATFORM SOLUTIONS, INC.’S
SECOND AMENDED COUNTERCLAIMS TO
INTERNATIONAL BUSINESS MACHINES CORPORATION’S SECOND
AMENDED COMPLAINT**

Counterclaimant Platform Solutions, Inc. (“PSI”), for its Second Amended Counterclaims against International Business Machines Corporation (“IBM”), alleges as follows:

Nature of the Action

1. This case arises out of Counterclaim-Defendant IBM’s unlawful and anticompetitive acts directed at PSI and its customers as part of IBM’s efforts to continue to dominate the relevant product markets for large-scale computers, commonly known as “mainframe computers,” that are compatible with the IBM operating systems needed to run these computers, called “mainframe operating systems.”

2. In an effort to eliminate consumer choice and destroy the only viable source of competition to its own mainframe computers, IBM is tying its mainframe computers to its mainframe operating systems by conditioning the licensing of its operating systems upon the purchase or continued use of an IBM mainframe computer. By doing so, and

refusing to license its operating systems to customers who wish to use IBM's dominant operating systems on PSI's mainframe systems, IBM is depriving mainframe computer and operating system customers of the benefits of competition and forcing those customers to pay supracompetitive prices for its products and services.

3. IBM is the dominant player in both the United States and worldwide markets for mainframe computers and mainframe operating systems, and it has held that position for decades. Mainframe computers and mainframe operating systems support the mission critical data processing needs of a wide range of businesses and other entities, including federal, state and local governments, banks and other financial institutions, airlines, and retailers. The markets for mainframe computers and mainframe operating systems are multi-billion dollar markets.

4. Compatibility between operating system software, application software, and mainframe hardware is essential to the functionality of a mainframe computer system. Accordingly, IBM's dominance of these markets has created distinct product markets for IBM-compatible mainframes and IBM-compatible software.¹ Consumers have invested over a trillion dollars in IBM-compatible software and hardware. These are now "locked in" to using IBM-compatible software and hardware. Were they to change platforms, they would incur enormous switching costs. As evidence of this fact, IBM's profit margins for mainframe products are the highest of all products sold by IBM.

5. IBM has historically faced competition from other manufacturers of IBM-compatible mainframes. For decades, IBM has licensed its mainframe operating systems to customers who have purchased IBM-compatible mainframe computers from other manufacturers, and has cooperated with competing developers of IBM-compatible

¹ For the purposes of these Counterclaims, computers that will run IBM's mainframe operating system software are referred to as "IBM-compatible," regardless of whether those computers are manufactured by IBM or a third party. Software application programs that run on IBM-compatible mainframes using the IBM mainframe operating system are also referred to as "IBM-compatible" or "IBM-mainframe-compatible" software programs, regardless of whether those applications are made by IBM.

mainframe computers by providing them with licenses, technical information, and technical support for IBM's mainframe operating systems and related software applications.

6. This conduct was part of a deliberate campaign to encourage mainframe manufacturers, application developers, and customers to adopt the IBM architecture as the industry standard. This campaign was successful. To this day, the IBM architectural platform defines a "mainframe," and thousands of companies have invested billions of dollars into this industry-standard platform.

7. When IBM's two primary remaining competitors, Amdahl and Hitachi, announced their exit from the market in 2000, however, IBM changed its policies and began exploiting its monopoly over the architectural platform that it has induced customers, programmers, and developers to adopt. As a result, according to a well known analyst and former member of IBM's senior management, prices of mainframes are now six times higher than they would have been under competitive conditions.

8. Today, PSI is the only remaining competitor marketing IBM-compatible mainframes. PSI was started by former Amdahl employees, licensed Amdahl's mainframe computer technology, and seeks to practice Amdahl's former business model of marketing IBM-compatible mainframes in competition with IBM. In conjunction with its business partners, PSI has developed and is continuing to develop and market IBM-compatible mainframes capable of running IBM's mainframe operating system and thereby processing IBM-mainframe-compatible application software and data to compete with IBM's own mainframe computers. In addition to providing consumers with an alternative to IBM's own mainframe computers, a PSI computer system provides consumers with the ability to run other types of operating system software, such as Linux, Microsoft Windows and UNIX, on a single machine. The PSI mainframe computer system is thus the first open architecture mainframe computer system.

9. Rather than compete with PSI on the merits, IBM has embarked on a campaign of unlawful, inequitable, deceptive, and anticompetitive conduct in an effort to maintain and expand its mainframe monopoly. In particular, IBM has: (1) tied the

licensing of its most current mainframe operating systems, z/OS, VSE, TSF and z/VM (collectively “z/OS”), to consumers’ purchase or continued use of an IBM mainframe, thereby forcing customers of its operating system and applications to purchase or use IBM mainframes; (2) wrongfully interfered with the prospective sale of PSI to another large technology firm; (3) embarked on a campaign of systematic efforts to create “fear, uncertainty, and doubt” (“FUD”) by falsely representing to customers that purchasing competing products will result in a loss of reliability, availability and serviceability (“RAS”); (4) implemented sales and support policies that effectively forced customers to “upgrade” to newer versions of its operating system and discontinued technical support of prior versions of its operating system in order to prevent those customers from using prior versions of its operating system on competing mainframe computer systems; (5) refused to provide critical product interface information that IBM had previously provided to others and that was needed to develop a compatible mainframe operating system in order to hinder and delay PSI’s ability to market its competing products; and (6) refused to license allegedly applicable patents to PSI notwithstanding its (a) publicly disseminated and relied upon policy of reasonable, non-discriminatory licensing; (b) express assurances to PSI that it would license its OS/390-related patents to PSI; (c) past licensing to companies operating the same business model in the same market; and (d) thirty years of actions and statements made during the development of the standards and specifications comprising IBM’s architectural platform that were designed to encourage and induce programmers, developers, customers and competitors to adopt and conform to those standards, followed by its recent campaign to exploit the monopoly it obtained through its standard setting activities to extend and prolong its mainframe monopoly at the expense of consumers and competition.

10. IBM is thus using its monopoly power in the relevant markets to harm competition, suppress innovation, and interfere with free customer choice. IBM’s actions have injured PSI by excluding PSI as a competitor and preventing PSI from selling its computer systems. IBM has also tortiously interfered with the sale of PSI to another

company, and has thus caused PSI and its shareholders hundreds of millions of dollars in damages.

11. The market-wide cost of IBM's exclusionary campaign to eliminate competition to its mainframe computers will be billions of dollars. These costs will ultimately be paid by consumers. By this action, PSI seeks to recover damages based on the lost profits and lost business opportunities that it has suffered and is suffering as a result of IBM's exclusionary conduct, and to restore free and open competition in the relevant markets so that future customers will have the opportunity to choose the best products at competitive prices.

The Parties

12. PSI is, and at all times mentioned herein has been, a corporation incorporated and existing under the laws of the State of California, with its principal place of business in Sunnyvale, California.

13. IBM is, and at all times mentioned herein has been, a corporation incorporated and existing under the laws of the State of New York, with its principal place of business in Armonk, New York.

14. Both parties transact business in interstate and foreign commerce, and the activities alleged herein have a substantial effect on interstate and foreign commerce.

Jurisdiction

15. This Court has subject matter over PSI's claims for declaratory judgment of non-infringement and invalidity pursuant to 28 U.S.C. §§ 1331, 1338, 2001, 2201 and 2201.

16. This Court jurisdiction over PSI's claims under Sections 1 and 2 of the Sherman Act, 15 U.S.C. §§ 1, 2, and §§ 3 and 4 of the Clayton Act, 15 U.S.C. §§ 14 and 15, pursuant to 28 U.S.C. § 1331. The Court has jurisdiction over any claims not so arising based on 28 U.S.C. § 1367 because such claims are so related to the claims within this Court's original jurisdiction that they form part of the same case or controversy.

17. This Court has jurisdiction over PSI's state law claims pursuant to 28 U.S. § 1367.

18. This Court also has jurisdiction over this action pursuant to 28 U.S.C. § 1332 because plaintiff and defendant are citizens of different states and the matter in controversy exceeds, exclusive of interest and costs, the sum or value of \$75,000.

Venue

19. Venue for these Counterclaims is proper in this District because IBM maintains its principal place of business in this District.

Factual Allegations

Relevant Markets

20. The relevant markets in this case are the markets for IBM-compatible mainframe computers and IBM-compatible operating systems.

21. Mainframe computers are large, expensive, powerful computers used for processing high volumes of information at very high speeds. Most of the world's largest corporations and government entities rely on mainframe computers for their high volume and mission-critical data processing needs, including matters such as billing, accounting, order entry, record keeping and transaction processing. Much of the work done on these mainframe computers uses software custom-written by or for the end-user organization for the specific needs of the user.

22. Although IBM holds a dominant position in the broader market for all mainframe computers, the relevant antitrust market in this case is the market for mainframe computers that are compatible with IBM's mainframe operating systems and other IBM-compatible applications (the "IBM-compatible mainframe" market).

23. While non-IBM-compatible mainframe computers may be reasonable substitutes for limited subcategories of mainframe customers—such as new purchasers with relatively low data processing demands or purchasers with limited needs for legacy applications written for IBM-compatible systems—there are no reasonable substitutes for IBM-compatible mainframes for a substantial and well-defined subset of mainframe customers who are "locked in" to the IBM platform based on their prior hardware/software purchasing decisions and their relatively high data processing demands. By IBM's own estimates, consumers have invested well over \$1 trillion in

software compatible with IBM's mainframe operating systems and hardware. Such enormous investment in IBM-compatible software has effectively locked in many consumers to IBM-compatible mainframe computer systems, because conversion or migration to non-IBM-compatible mainframe computer systems would be prohibitively expensive.

24. To switch to a non-IBM-compatible mainframe computer system, locked in consumers would need to expend enormous amounts of time, money, and other resources to acquire new applications software and/or to translate, convert, or migrate their existing data and applications to a non-IBM-compatible mainframe computer system and to retrain employees and reconfigure operations to work with the new operating system. Many locked in consumers who use IBM-compatible mainframe software for mission critical functions, such as banking, insurance, or governmental functions, cannot risk catastrophic failures caused by switching to a non-IBM-compatible mainframe system. Moreover, many large customers have more than one mainframe and their mainframes must be compatible to permit "coupling," which allows for substantially reduced software licensing fees, increases the amount of computing power that can be devoted to particular tasks, and creates other efficiencies. Thus, other than prematurely replacing hardware costing hundreds of thousands of dollars, these customers have no choice but to purchase IBM-compatible mainframes.

25. Even if they had comparable data processing and other performance capabilities, computers that principally run UNIX, Linux, or Windows operating systems are not reasonable substitutes because "lock-in" effects prevent customers from choosing products that are not compatible with their existing mainframe operating systems and applications, and because mainframe software applications were not written for those operating systems.

26. Cross-elasticity of demand supports defining IBM-compatible mainframes as a distinct antitrust market because consumers locked in to IBM-compatible mainframe applications would tolerate supracompetitive price increases for IBM-compatible mainframe operating systems or IBM-compatible mainframes if the price increases did

not exceed the costs of abandoning their existing investments in IBM-compatible mainframe software.

27. Other than PSI, whose efforts to market its IBM-compatible mainframes have been thwarted by IBM's actions as alleged herein, IBM is the sole current developer of IBM-compatible mainframe computers, and its share of IBM-compatible mainframe sales currently stands at almost 100 percent. However, until roughly 2001, other developers of IBM-compatible mainframes such as Amdahl and Hitachi competed with IBM in the relevant market, and the existence of that history of competition from IBM-compatible mainframe developers further demonstrates the existence of a relevant market for IBM-compatible mainframes. Indeed, following Amdahl's and Hitachi's exit from the market, prices for mainframe computers have been substantially higher than they would have been in a competitive market.

28. There are substantial barriers to entry in the IBM-compatible mainframe market. Mainframes are extremely expensive to build, and it takes years to gain market acceptance. Even where a developer such as PSI uses existing hardware, it takes years to develop IBM-compatibility. Prior to PSI, no significant developer of IBM-compatible mainframes had entered the market in thirty years. IBM's last two remaining competitors, Amdahl and Hitachi, exited the market in 2000 instead of continuing to invest in the development of the mainframe technologies needed to market a mainframe computer in competition with IBM. IBM's market influence, including the types of anticompetitive conduct alleged herein, also creates additional barriers to entry.

29. The relevant market in which IBM-compatible mainframes compete could alternately be defined to include the mainframe computers manufactured by companies such as Unisys and Bull that share "Reliability, Availability and Serviceability" and lock-in characteristics similar to IBM-compatible mainframes. However, these mainframes are marketed and supported as niche products, have very small market shares, and do not pose significant competition to IBM. As IBM has itself noted, other "servers" running Unix and Windows are not actual mainframes that are interchangeable with IBM mainframes. For example, according to IBM's own documents, the total cost of

ownership for its flagship z/990 mainframe is 30 percent to 60 percent less than combining thirty Sun or Linux servers to perform the same functions.

30. IBM also has monopoly and market power under this broader market definition, with a share in excess of 85 percent. All of the allegations made herein apply with equal force to this alternate market definition.

31. The second relevant antitrust market in this case is the market for IBM-compatible mainframe operating systems. Operating systems are required for the mainframe to function; they control the operational resources of the computer and allow compatible application software to run on the computer. The dominant mainframe computer operating systems are IBM's OS/390 (distribution and support for which has been dropped) and z/OS operating systems (which includes z/OS, VSE, z/TSF and z/VM), with thousands of customers worldwide.

32. As discussed above, the operating system has to be compatible with both the mainframe hardware and the software applications that run on the computer. To be viable, an operating system must be "backward compatible" with prior versions of that operating system and with the software applications written for those prior versions of the operating system so that customers can continue to access their existing applications and data.

33. Due to its longstanding monopoly in mainframes and mainframe operating systems, IBM has an enormous, trillion dollar installed base of software and hardware. IBM-compatible mainframe operating systems are specifically designed to work with and exploit the technical complexities and capabilities of mainframe computers and must be compatible with the hardware architecture, specifications and interfaces to function properly. In addition, the operating system and its application program interfaces must be compatible with the existing installed base of IBM and third-party IBM-mainframe-compatible software.

34. Locked in consumers with existing applications and software cannot as a practical matter switch to other operating systems such as Bull, Unisys, UNIX, Linux, or Windows, because of the prohibitive switching costs such consumers would incur in

abandoning their installed base of IBM-compatible mainframe software. Application programs, data files, and other software designed to operate with only IBM-compatible mainframe operating systems are not compatible with other operating systems. Large customers also have employees specifically trained to operate IBM software and hardware. Accordingly, to switch to a non-IBM-compatible operating system, locked in consumers would either have to abandon their existing investment in IBM-compatible mainframe software or expend enormous amounts of money and other resources to retrain employees and to convert or replace their existing applications and data to work with a non-IBM-compatible mainframe operating systems. Thus, while Linux, Unix and Windows may be reasonable substitutes for limited subcategories of potential mainframe customers—such as new purchasers with relatively low data processing demands or purchasers with limited needs for legacy applications written for IBM-compatible systems—there are no reasonable substitutes for z/OS for a substantial and well-defined subset of mainframe customers who are locked in to the IBM operating systems based on their prior hardware/software purchasing decisions and their relatively high data processing demands.

35. Cross-elasticity of demand supports limitation of the market to IBM-compatible mainframe operating systems, because consumers locked in to IBM-compatible mainframe software would tolerate supracompetitive prices for IBM-compatible mainframe operating systems if the supracompetitive portion of the price did not exceed the cost of abandoning their existing investment in IBM-compatible mainframe software. According to IBM itself, the vast majority of core, back-office applications are still implemented as COBOL transactions running on IBM mainframes, and analysts have estimated that the value of COBOL lines in use (which number in the hundreds of billions) exceeds the value of the largest publicly traded companies. As IBM succinctly states on its web site, “[a]fter 20 years, and billions of dollars wasted on trying to migrate applications from mainframes, the largest and most robust enterprises continue to depend heavily on the mainframe.”

36. The primary IBM-compatible mainframe operating system currently marketed or supported by IBM is z/OS. Because IBM has withdrawn the OS/390 version and its predecessors from marketing, and no longer supports them, z/OS is the only IBM-compatible mainframe operating system available to either purchasers of new IBM-compatible mainframes or existing customers who wish to upgrade. Thus, IBM has monopoly power in the market for IBM-compatible operating systems.

37. There are significant barriers to entry in the market for mainframe operating systems. A new operating system for a mainframe computer is extraordinarily complex and takes many years to develop. Because of the mission-critical nature of the work performed on mainframe computers, it is extremely unlikely that a customer would choose an operating system that has not been thoroughly developed, tested and proven over many years. To the extent that any operating system conceivably could develop into a viable competing operating system for mainframe computers, that operating system would require compatibility with customers' current operating systems and software applications so that customers could continue to access their existing programs and data. The existence of intellectual property rights in the relevant market also creates additional barriers to entry.

38. The relevant market in which IBM mainframe operating systems compete could alternately be defined to include other mainframe operating systems, such as the proprietary operating systems used to run mainframe computers manufactured by Unisys and Bull. IBM also has monopoly and market power under that broader market definition, with a share in excess of 85 percent. As IBM has itself acknowledged, Linux, Unix or Windows are not true mainframe operating systems because they have neither the performance capabilities nor the dynamic functionality of a mainframe operating system. Thus, for customers with high data processing needs, those operating systems are not reasonable substitutes. All of the allegations made herein apply with equal force to this alternate market definition.

39. The relevant geographic market in this case is worldwide. IBM markets its mainframe computers and operating systems to customers throughout the world, and PSI

is seeking to compete against IBM for customers throughout the world. As a result of the exclusionary conduct alleged below, PSI has lost and is losing sales both in the United States and in export markets throughout the world.

40. Although PSI believes that the relevant markets described above are the appropriate markets for considering PSI's antitrust claims, the use of a different broader market definition (though not consistent with economic reality) would not change the conclusion that IBM has substantial market power such that its tying and other anticompetitive conduct are causing harm to competition. For instance, even if one were to consider markets including all high-end enterprise servers, and the operating systems used to run those servers, IBM would have substantial market power in those markets. .

The History and Growth of the IBM-Compatible Mainframe Market

41. IBM has long dominated competition in the relevant markets for mainframe computers and mainframe operating systems. From the 1950s to the early 1970s, IBM achieved dominance in the market for mainframe computers. Toward the end of this period, IBM achieved dominance in the market for mainframe operating systems as well.

42. In 1956, IBM responded to antitrust claims brought by the United States Department of Justice by entering into a consent decree that put limits on its ability to exploit its monopoly in tabulating machines and electronic data processing machines.

43. Beginning with IBM's introduction in 1964 of its S/360 line of mainframe computers and operating systems, and continuing with subsequent model lines, IBM freely and broadly disseminated the architecture specifications of its mainframe computers and operating systems. Customers, competitors, and other third-party software and hardware developers used the information disseminated by IBM to create software and hardware products designed specifically for use with IBM's mainframe computers and operating systems—resulting in the adoption of the IBM architectural platform and the standards and specifications embodied therein as the industry standards for complex computing.

44. The profusion of new IBM-compatible mainframe software and hardware products vastly expanded the installed base of IBM-compatible mainframe operating systems. The resulting “network” effect provided additional incentive for consumers to adopt and to use IBM mainframe operating systems, which further expanded the installed base of IBM-compatible application software.

45. The expansion in the installed base of IBM mainframe operating systems and other IBM-compatible mainframe software benefited IBM by making its mainframe operating systems more desirable and decreasing the viability of operating systems incompatible with that installed base. The development by customers and competitors of IBM-compatible mainframe hardware and application software benefited consumers by spurring innovation and decreasing prices for IBM-compatible mainframe hardware and software.

46. IBM’s policy of reasonable and non-discriminatory licensing and system openness was integral to its success, public image and reputation. IBM knew that such policies were integral to customer and developer acceptance and continued use of the IBM architectural platform as an industry standard.

47. Since the 1970s, customers and programmers have adopted the IBM architectural standard with knowledge that IBM would face competition in IBM-compatible computers, and would not have a complete monopoly over the market. They adopted the IBM architectural standard based on IBM’s conduct and public statements that it would promote free competition.

48. By 1976, competitors such as Amdahl Corporation were using the information disseminated by and licensed from IBM to develop competing IBM-compatible mainframe computers, on which consumers could run their IBM mainframe operating systems and IBM-compatible mainframe application software. For decades following the development of such IBM-compatible mainframe computers, IBM licensed its mainframe operating systems on nondiscriminatory terms to the purchasers of such IBM-compatible mainframe computers. The availability of competing IBM-compatible mainframe computers from Amdahl and from other vendors, such as Hitachi Data

Systems, provided additional incentives for consumers to use IBM mainframe operating systems and to develop or use other IBM-compatible mainframe application software. Nonetheless, IBM always retained a competitive advantage because there was a “lag” in the development of compatible products, and because it has always enjoyed a lucrative monopoly over the operating systems run on mainframe computers.

49. By the late-1990s, Amdahl and Hitachi collectively attained over a twenty percent market share in the IBM-compatible market. However, in 2000, Amdahl and Hitachi announced that they were exiting the mainframe computer market, leaving IBM as the only developer of IBM-compatible mainframes.

50. At approximately the same time, the United States Department of Justice joined IBM in a motion to eliminate all remaining provisions of the 1956 Consent Decree, which imposed some limits on IBM’s ability to exploit its dominant position in the markets for operating systems and mainframe computers. The government concluded that, although IBM still had substantial market power in the S/390 operating systems market and mainframe market, the decree should be dissolved because: (1) IBM had confirmed that it instituted and maintained a policy of “system openness,” making its computer systems more compatible with those of other developers and that this policy derived from considerations independent of the Decree and would continue after the Decree terminated; (2) IBM faced competition in the market for IBM-compatible mainframes from companies such as Amdahl and Hitachi. The court approved the dissolution of the decree on May 1, 1997 and it was phased out by July 2, 2001.

51. The Department of Justice, in agreeing to dissolve the decree, explicitly stated that any attempt by IBM to return to its tying practices would be unlawful:

If, after the Decree terminates, IBM engages in any anticompetitive activity that would violate the antitrust laws, it would immediately be liable to suit. For example, should IBM engage in *anticompetitive tying—be it to parts or operating systems*—the United States could bring an action for injunctive relief both to stop the illegal conduct and to get other, broader prophylactic relief. [citations omitted]. Also, IBM would be liable to a host of potential private treble damage actions. [citations omitted].

(Emphasis added).

**IBM's Mainframe Monopoly Has Resulted in Higher
Costs for Consumers Since 2000**

52. As discussed further below, once Amdahl and Hitachi exited the market for IBM-compatible mainframes, IBM reversed its practice of system openness and reasonable non-discriminatory licensing and embarked on a strategy of monopolizing the market for mainframe computers.

53. IBM's post-2000 dominance has allowed it to resist the downward pricing pressures that competition and innovation should have created. IBM measures mainframe performance by reference to a measurement known as millions of instructions per second or "MIPS." IBM has tracked the "price per MIPS" of its mainframe systems over more than forty (40) years. The price per MIPS has precipitously fallen over this period of time, from nearly \$10,000,000 U.S. in 1960 to approximately \$2,000 in 2000. This general trend of decreasing prices has been observed throughout the computer industry and is attributable in large part to advances in processor design and manufacturing techniques.

54. When competition for IBM-compatible mainframes disappeared, IBM was able to significantly resist the downward trend in price per MIPS. Amdahl and Hitachi, left the market for IBM-compatible mainframes in 2000. If the downward trend in price per MIPS between 1960 and 2000 had continued from 2000 to 2006, the price per MIPS should now be approximately \$165—but today it is more than six times that amount at approximately \$1,000. As a result, the largest systems today cost closer to \$18 million rather than the \$3 million they would have cost based on the price trends that were followed throughout most of the mainframe's history. This is the inevitable result when competition is eliminated.

55. The documents that IBM has produced in this case illustrate just how insulated IBM's mainframe prices and profits are from competition. In its internal documents, [REDACTED]

[REDACTED]

[REDACTED] Thus, IBM is well aware that the PSI system offers mainframe customers both a competitive choice they want and the opportunity for substantial cost savings vis-à-vis the IBM systems that they would be forced to purchase or maintain if IBM could succeed in its campaign to exclude PSI from the market.

IBM's Evolving Mainframe Operating System

56. From 1996 to 2000, the leading operating system marketed by IBM was OS/390. OS/390 was compatible with the version of IBM's mainframe operating system it superseded and with the huge installed base of IBM-compatible mainframe application software and data.

57. Initially, and for several years following the release of IBM's OS/390, consumers could also run the IBM OS/390 operating system and their installed base of other IBM-compatible mainframe software on IBM-compatible mainframe computers supplied by other computer developers such as Amdahl and Hitachi Data Systems, which combined to account for roughly 21 percent of the mainframe computer market by 1999. In 2000, however, both Amdahl and Hitachi Data Systems announced that they would stop manufacturing IBM-compatible mainframe computers, leaving IBM as the sole developer.

58. In October 2000, IBM upgraded its OS/390 operating system to the z/OS operating system and made it available for shipment in January of 2001. z/OS was compatible with existing IBM-compatible mainframe software, including the installed base of OS/390-compatible mainframe software. z/OS also included additional features and capabilities over the previous version of IBM's operating system, OS/390.

59. In December 2002, IBM withdrew marketing of the superseded OS/390 version of its operating system and announced that it would discontinue service for OS/390 by September 30, 2004, leaving z/OS as the only version of the IBM-compatible mainframe operating system in production and serviced or supported by IBM.

60. In September of 2004, IBM announced that, as of March 2007, it will discontinue supporting z/OS versions that run on anything other than 64-bit hardware. Accordingly, IBM will no longer support the use of z/OS on Amdahl's and Hitachi's IBM-compatible mainframes, which are 31-bit.

61. In the past, IBM has licensed z/OS to users of Amdahl and Hitachi mainframes, as well as users of Flex-ES, an emulation product offered by Fundamental Software. Presently, however, IBM will not license z/OS to any customer who does not purchase an IBM mainframe.

PSI Develops a Superior and Less Expensive Product To Compete in the IBM-Compatible Mainframe Computer Market

62. PSI was founded in 1999—shortly before Amdahl and Hitachi left the IBM-compatible mainframe computer market—with the goal of developing its competitive computer system. In particular, PSI sought to develop a computer system that (i) would include less expensive hardware than IBM's mainframe computers, and (ii) not only would run the IBM mainframe operating system (so that consumers could continue to run their IBM-compatible applications software), but also would run other, non-IBM operating systems (such as UNIX, Linux or Windows) in order to accommodate consumers' desires to utilize additional, non-IBM-compatible applications software and provide consumers with greater flexibility in the future paths of their informational technology purchasing decisions.

63. PSI initially chose to utilize equipment manufactured by Hewlett Packard ("HP"). HP provides the hardware, while PSI, an authorized reseller of the hardware, implements binary compatibility with IBM's machine architecture through specialized firmware that runs on Intel 64-bit Itanium processors used in the HP equipment. PSI additionally provides hardware for data transfer.

64. PSI implements guest-to-host compatibility of the IBM z/Architecture and the Intel Itanium architecture through firmware which executes directly on the Itanium processor. In this way PSI is distinguished from so-called "emulators," which are

typically higher level software applications running on top of an operating system. Thus, the PSI mainframe is designed to operate far more efficiently than emulator applications. The mainframes marketed by PSI also can run open operating systems such as Linux, HP-UX and Open VMS. This enables the entire hardware system to present both open and IBM-compatible machine architectures to the end-user.

65. Because of IBM's monopoly in the market for mainframe operating systems and the vast base of consumers locked in to IBM-compatible mainframe software, PSI could not compete in the mainframe computer market if its computers were not compatible with IBM's mainframe operating systems. More specifically, PSI could not compete if its computer systems were not compatible with IBM's most recent and currently supported version of its mainframe operating system. Accordingly, to develop and test its technology for IBM-mainframe-compatible computers, PSI needed to license the IBM mainframe operating system. Moreover, customers who wish to purchase a PSI computer system must be assured that they will be able to license IBM's mainframe operating system for use on that computer—otherwise, they would not be able to continue to run their IBM-compatible application software.

IBM Adopts a Policy of Discriminating in its Software Licensing Based upon Whether or Not the Customer Has Chosen to Use an IBM Machine or a PSI Machine

66. In December 2000, PSI began negotiations to ensure that IBM would license operating systems and associated intellectual property for use on PSI mainframes, as it had in the past for customers of mainframe computers developed by Amdahl and others. IBM, which had apparently adopted a new strategy of exploiting its entrenched operating system monopoly to reinforce its mainframe computer monopoly, was resistant and offered conflicting reasons for refusing to license its operating systems for use on PSI mainframes. With respect to OS/390, IBM stated that it would continue licensing that version of its operating system as it had in the past. Then it asserted that it would license neither z/OS, its latest operating system, nor OS/390, for use on a Intel 64-bit system, but

it offered no reason for not doing so. At the time, IBM was licensing OS/390 on its own 64-bit systems, and also had licensed OS/390 and VSE for use on emulator systems marketed by a company called Fundamental Software, Inc. (“FunSoft”).

67. PSI sought further assurances that IBM would not discriminate against PSI’s consumers in its software and intellectual property licensing. IBM, however, delayed responding to PSI’s requests. By January 2003, IBM had still refused to reach an agreement with respect to licensing. However, it denied that it had rejected PSI’s request and instead stated that it had not yet decided whether to license z/OS and OS/390 for use by PSI on a 64-bit platform, in part because it had not yet determined an appropriate price for the license.

68. In late February 2003, PSI wrote to IBM making “a final plea for a timely resolution to this issue” and reiterating the details of its request. PSI sought an agreement in principle from IBM not to deny licenses for its operating systems to customers of PSI’s computer systems. PSI emphasized that, as a company in the process of closing its first round of venture financing, PSI likely would be irreparably harmed if IBM’s delay in resolving these issues resulted in PSI’s inability to close on its financing in a timely fashion. PSI also wrote that “[a] simple letter confirming that IBM intends to pursue the same non-discriminatory licensing policy as in the past, or something to that effect, should suffice for our immediate purposes.”

69. In response, IBM represented that it would permit customers of PSI to license IBM’s mainframe operating system for use on PSI computer systems under IBM’s then-current licensing terms, based on performance and functionality, provided that PSI’s computer systems did not infringe IBM intellectual property rights. IBM further stated: “[W]e believe the system described by you will have needs under IBM’s patents. Under our current practice, IBM would be willing to enter into a patent license with PSI.”

70. Having been assured that IBM would not discriminate in its licensing and that any patent conflicts could be avoided through a licensing agreement, PSI proceeded with its development plan.

71. On or about May 14, 2003, PSI and IBM entered into a development license agreement for OS/390. OS/390 had already been withdrawn from marketing and, undisclosed to PSI at the time of the agreement, IBM withdrew the OS/390 from service and support in September 2004, leaving z/OS as the only supported mainframe operating system.

72. In March 2004, PSI ordered and subsequently received two licenses to run z/OS on PSI mainframes. These orders were processed through PSI's IBM account representatives at IBM's Atlanta and Dallas offices. They were aware that the software was ordered for use on the PSI platform. In fact, an IBM account representative even visited PSI's offices in Sunnyvale, California. Since issuing those initial licenses to PSI, however, IBM has reversed course and now refuses to grant further licenses of the current version of its mainframe operating system to PSI or to license its mainframe operating system to PSI customers.

73. In a May 24, 2006 letter, IBM definitively stated that it would refuse to license its mainframe operating system to any customer of PSI's competing mainframe computer system.

IBM Promises, Then Refuses, To License Any Applicable Patents to PSI

74. IBM has widely represented, on its website and elsewhere, that it is committed to openness and that it licenses its patents on a nondiscriminatory basis. Product developers such as PSI have consistently relied on this policy over the years in the event there was any concern over infringement of IBM patents. The link to this page on the website was <http://www.ibm.com/ibm/licensing/patents/practices.shtml>, which was taken down without any statement or explanation sometime in 2006. Consumers have relied on similar assurances of system openness in choosing to purchase IBM products.

75. In 2001, IBM represented to PSI that it would make available OS/390 interfaces and architectures that had been made available to other competitors. In March

2003, IBM also represented that it would be willing to enter into a patent license with PSI, and granted PSI a development license for OS/390.

76. In 2004, IBM engaged in patent license discussions with PSI. In those discussions, IBM represented to PSI that IBM would provide a nondiscriminatory patent license to PSI on standard terms and conditions. In particular, IBM represented that it would license patents required for IBM mainframe compatibility for a running royalty rate of 1 percent of net sales of licensed products, up to a maximum cumulative royalty rate of 5 percent for a license of five or more patents. In the course of those discussions, PSI provided IBM with substantial technical information about its product under development. PSI requested that IBM identify any of its patents that IBM believed might be implicated by PSI's proposed product. IBM did not do so.

77. IBM thereafter refused to continue patent license discussions with PSI unless PSI: (i) disclosed specific technical information about its product currently under development; (ii) executed an agreement stating that any information PSI disclosed to IBM in the course of those discussions would be treated as non-confidential and would be fully usable by IBM, including in its business activities in competition with PSI; and (iii) agreed that IBM was not obligated to enter into any license agreement. Accordingly, as a condition of even entering into licensing negotiations, IBM required PSI to disclose confidential, proprietary information, while simultaneously signing an agreement stating that PSI was not revealing confidential, proprietary information.

78. In August 2005, IBM sent PSI a list of some 150 patents which it characterized as a "representative list" of IBM patents that "may" be infringed by the PSI system, without linking them to any PSI product. IBM stated that this was "not an exhaustive list," and requested PSI to demonstrate—but again without agreeing to maintain the confidentiality of PSI's product information—that PSI's system did not infringe any of the claims in any of these patents.

79. Because of the extensiveness of the list of "representative" patents that IBM had asserted "may" be infringed by PSI's product, and the fact that it would have been prohibitively expensive for PSI to analyze every IBM patent claim even on that

“representative” list in order to make a non-infringement demonstration to IBM, PSI suggested the parties simply resume their patent licensing discussions. In this connection, PSI offered to provide whatever technical information about its products that would be needed by IBM, without requiring IBM to agree to keep PSI’s technical product information confidential.

80. In February 2006, representatives of PSI and of IBM met again to discuss the patent licensing issues. The IBM personnel at the meeting stated that, with respect to a patent license, there would be substantial resistance from IBM’s business side. Specifically, an IBM representative stated something to the effect of: “No one on the zSeries hardware team wants to see z/OS on an HP machine.”

81. More than three months later, on May 24, 2006, IBM wrote to PSI stating that it would refuse to license any IBM patents to PSI or PSI customers. IBM thus reneged on its express promises made to PSI in 2001 through 2004 concerning its willingness to license its patents to PSI and to continue its decades-long practice of licensing its patents to third parties engaged in the development of IBM-compatible mainframe computers.

82. As IBM’s limited production in this case to date confirms, IBM’s decisions and conduct were motivated solely by its desire to eliminate a competitor that threatens its highest margin business, and not by a desire to protect the intellectual property that it has freely licensed to others.

IBM Uses its Market Power and Influence to Dissuade Companies from Partnering with PSI and IBM’s Tying, Exclusionary and Unlawful Conduct Results in the Cancellation of the Sale of PSI

83. As IBM’s document production has revealed, one of IBM’s primary concerns regarding PSI was that it would partner with, or be acquired by, a larger technology company that would have greater resources to market PSI’s product and to challenge IBM’s anticompetitive actions.

84. In 2005, after being questioned by IBM about its association with PSI, Fujitsu divested its interest in PSI in an effort to convince IBM that it did not intend to reenter the PCM business.

85. Also in 2005, PSI began considering a potential acquisition of its business by a major technology company, which has a patent cross-licensing agreement with IBM covering all of the patents in suit, and would thus be insulated from IBM's pretextual allegations of patent infringement. Following the completion of that transaction, PSI's mainframes would have been marketed by the acquiring company and encompassed within that company's cross-license.

86. In September 2006, PSI was on the verge of finalizing the acquisition.

87. In October 2006, after learning of IBM's refusal to sell its operating systems and software applications for use on PSI mainframes, the would-be acquiring company refused to complete the acquisition. However, up until the time of this lawsuit, the company was reevaluating whether to acquire PSI because (a) it determined that IBM's patents did not pose any problems, and (b) IBM's refusal to license was anticompetitive and would not be legally supportable.

88. Upon information and belief, that company was deterred by IBM's refusal to license z/OS on a PSI mainframe. Indeed, IBM's refusal to license its operating systems significantly devalued PSI in the marketplace, and IBM both recognized this and intended this. Upon information and belief, IBM deliberately refused to articulate the reasons for its refusal to license, fearing that reliance on the PSI's lacking of a patent license—which IBM earlier promised to PSI—would lead to the acquisition of PSI by one of the hundreds of companies to which IBM has cross-licensed its patent portfolio pursuant to its RAND patent licensing policy.

89. The abandonment of the potential acquisition has destroyed a substantial business opportunity for PSI, causing PSI hundreds of millions of dollars in damages. More generally, IBM's actions have substantially devalued PSI in the marketplace.

90. Even after this lawsuit was filed, IBM continued to threaten PSI's business partners to dissuade them from working with PSI. In August 2007, a senior IBM

executive threatened a PSI business partner and major technology company with a lawsuit if it continued to do business with PSI. That IBM would continue to threaten PSI's business partners, even after litigation had been initiated and PSI effectively excluded from the market, confirms IBM's anticompetitive intent and its pattern and practice of harassing PSI's investors, business partners, and customers.

IBM Launches a Campaign to Destroy PSI's Reputation and Business

91. IBM has also been contacting PSI's customers and potential customers to instill "Fear, Uncertainty, and Doubt" regarding PSI and its products. IBM has told PSI's customers and potential customers, without any basis, that PSI's products will not work as PSI asserts.

92. IBM has told PSI's customers and potential customers that it will refuse to license its operating systems for use on PSI mainframes and that it is "committed to putting PSI out of business."

The PSI Mainframe Does Not Infringe IBM's Patents, Does Not "Reverse Assemble, Reverse Compile, or Otherwise Translate," Did Not Misappropriate IBM Trade Secrets, and was Developed Using IBM's Publicly Available Principles of Operation.

93. The PSI mainframe's IBM-compatibility was implemented through the use of IBM's Principles of Operation, which reflect a set of standards and specifications for the IBM z/Architecture that are in the public domain. Many of the architectural standards and specifications of IBM's operating systems are also in the public domain. PSI licensed IBM's operating system solely to test the product, and it did not run the program in any manner materially different than any other end user would.

94. IBM's trade secret misappropriation claims are without merit. PSI received a license to Amdahl's diagnostics, a fact of which IBM was aware as early as 2001.. This transfer was entirely proper. PSI believes these programs were freely licensable as any other program written to run on an IBM or Amdahl processor, such as IBM's OS/390 or Amdahl's former UTS operating systems. Moreover, PSI believes that, at a maximum,

less than ten percent of these diagnostics related to so-called TIDA/TILA information. PSI acknowledges that it inadvertently received source code listings from Fujitsu related to some of these diagnostics which the parties had intended to be excluded from the scope of the license. But PSI can readily demonstrate, even assuming for the sake of argument that this source code would disclose some relevant information, that the functions to which the subject diagnostics relate were publicly available at the time these materials were received by PSI. Finally, PSI can further demonstrate in every case the information sources used for its product design and that these sources did not include any diagnostic source materials or any other purported IBM confidential information.

95. PSI did not need to—and did not—“reverse assemble, reverse compile, or otherwise translate” the operating system software that IBM licensed to PSI. Contrary to IBM’s assertion that “otherwise translate” has a boundless definition and applies to the implementation of a particular computer’s instruction set (architecture) in a computer with a different architecture, the term “otherwise translate” in the context of the licensing agreement clearly refers to the reverse engineering of software, which PSI does not—and has no need to—practice.

96. IBM never accused PSI of breaching these provisions of its licensing agreement prior to initiating suit and IBM’s own practices are inconsistent with such a strained interpretation. In 2003 IBM willingly licensed its OS/390 operating system to PSI under the terms of the ICA knowing full well that PSI was developing an IBM-compatible system based on machine instruction translation. Further, IBM readily licensed its software products to run on emulator systems developed and marketed by Fundamental Software, in the broadest sense a technology similar to that developed by PSI.

97. Assuming *arguendo* that IBM’s construction of the licensing agreement is correct—which it is not—the agreement would require that IBM’s operating system be run on only on mainframes with IBM architecture, which only IBM sells. IBM cannot identify any legitimate, non-pretextual, pro-competitive justification for requiring customers to agree to such an exclusive dealing provision.

98. IBM's assertions that it is motivated by a desire to preserve the reputation of its product and enhance "reliability, availability and serviceability" lack any basis in fact. Lack of RAS is simply another slur that IBM uses to denigrate competitors and instill "Fear, Uncertainty and Doubt" in consumers. The performance of Amdahl and other competitors' compatible mainframes demonstrates that non-IBM mainframes can work equally as well as IBM mainframes, and that the market (which consists of highly sophisticated consumers) are able to judge for themselves which mainframes can reliably utilize IBM's operating systems.

99. Although PSI at all times expected to obtain a license to IBM's patents and intellectual property on fair, reasonable and non-discriminatory terms similar to those provided to Amdahl and Hitachi, and relied on IBM's representations that it would license them on that basis, PSI was at all times, and remains, unaware of any valid IBM patents that are infringed by the PSI mainframe. Rather, PSI believed that it was more cost-efficient to obtain a license from IBM to avoid potential litigation (such as the instant suit) and to prevent IBM from using the lack of a patent licensing agreement as a pretext to deny software licenses to PSI's customers.

100. IBM's patents, including those asserted in this action, relate to the standards and specifications of minor functions such as rounding modes and determining types of floating point data that are not central to the functionality of either the operating system or the hardware. Moreover, they purport to claim discrete functionalities that IBM has historically licensed, and continues to license, to end users and software developers for little or nothing, and that IBM has historically licensed to competing manufacturers of IBM-compatible mainframes on reasonable and non-discriminatory terms.

101. Licensees of IBM's mainframe operating systems have an implied license to perform the functions described in these patents—without such a license, the operating software would be valueless. Regardless of how IBM's operating system license is phrased, it is not permitted to write its license in such a manner that requires a consumer to also purchase an IBM mainframe in order to perform the functions dictated by the

operating system, and IBM may not collect a double royalty. Thus, IBM's patents cannot be infringed though the use of IBM's operating system on any mainframe, including a PSI mainframe.

102. Moreover, upon information and belief, PSI and/or its customers cannot be held liable for infringement because HP and NEC, PSI's business partners, and Intel, the manufacturer of the Itanium processors in which some of the facilities IBM asserts are infringing reside, have patent cross-licenses with IBM that apply to PSI's mainframes.

103. Finally, even assuming *arguendo* that IBM has valid patents that are infringed by certain uses of PSI's mainframe, there are substantial non-infringing uses of those mainframes. IBM's accusations of infringement are therefore inaccurate.

104. PSI cannot yet fully assess whether IBM brought its patent infringement claims based on a good faith belief in their merits, or instead is pursuing this litigation as a competitive weapon to drive PSI from the market without regard to the merits of its claims or lack thereof. If further investigation and discovery establish that IBM's patent infringement claims are part of its exclusionary campaign to foreclose competition in the market for mainframe computers, PSI reserves the right to include that conduct as among the grounds for its monopolization claim.

If IBM's Patents are Infringed by any Mainframe that is Compatible with IBM's Operating Systems, IBM's Refusal to License is an Anticompetitive Competitive Abuse of the Standard Setting Process and of the Essential Facilities Embodied in its Patents

105. Assuming *arguendo* that PSI's system infringes IBM's patents because it is capable of performing the functions dictated by IBM's operating system software when a licensed copy is installed on a PSI system by a consumer—which PSI denies—IBM's current efforts to enforce those patents against PSI constitutes an abuse of IBM's monopoly power.

106. For decades, IBM has actively encouraged customers, developers, programmers, business partners and competitors to standardize on its mainframe architecture by repeatedly representing that it engages in fair, reasonable and non-

discriminatory licensing of interoperability information needed to manufacture compatible products and related intellectual property. IBM postures itself as a champion of “open systems and standards,” arguing that competitors must have reasonable and non-discriminatory access to interoperability information and related intellectual property is essential to competitive development and innovation in information technology industries, such as the mainframe industry.

107. Customers, developers, programmers, business partners and competitors have relied on IBM’s position of reasonable and non-discriminatory licensing of interoperability information and related intellectual property throughout the development of the standards and specifications embodied in the IBM mainframe architectures. IBM customers are now locked in to the use of IBM-compatible mainframes and operating systems as the result of these standards and specifications. It is a blatant abuse of that standard setting process for IBM to now seek to enforce patents it claims read on those standards and specifications to exclude PSI from the mainframe market and thereby extract higher prices and higher profits from its customers. Yet, that is exactly what IBM is seeking to do through this litigation and through its refusal to provide its mainframe operating system to PSI customers.

108. To the extent that use of the functionalities claimed by IBM’s patents is necessary to manufacture any IBM-compatible mainframe, those patents also are essential facilities. IBM’s refusal to provide access to these essential facilities, when considered in light of IBM’s market power, previous policy, practice, representations, and inducement of customers, developers, and programmers to adopt IBM’s architectural platform as an industry standard, is independently, and in combination with IBM’s tying and other wrongful conduct, anticompetitive. IBM’s sole intent in changing its policy is to maintain and expand its monopoly; it does not have a legitimate pro-competitive interest in protecting the same intellectual property that it has freely licensed to others.

**IBM’s Tying and Exclusionary Conduct Injure
Competition, Competitors, and Consumers in the Relevant Markets and the
Markets for Application Software and Storage Devices**

109. IBM's z/OS operating system is the only operating system currently available to run on IBM-compatible mainframes and that is compatible with the application software written for IBM-compatible mainframes. By refusing to license z/OS to customers for use on PSI's competing mainframe, IBM has made itself the only supplier of IBM-compatible mainframes. Accordingly, all consumers locked in to IBM-compatible mainframe operating systems must purchase IBM mainframe computers.

110. Mainframe operating systems and mainframe computers are separate products that could be sold separately by IBM, as demonstrated by IBM's past practice for several decades of licensing IBM mainframe operating systems to consumers for use with IBM-compatible mainframe computers developed by Amdahl or Hitachi Data Systems. In fact, IBM has historically published software licensing terms for OS/390 and z/OS stating that the operating system will run on the then currently supported IBM servers "or equivalent." This included the 64-bit only versions of z/OS, version 1.6 and version 1.7. On August 8th, 2006, IBM announced the terms for its latest version of z/OS, version 1.8, which dropped the term "or equivalent," referencing only System z servers.

111. By changing its historic practices of (i) providing nondiscriminatory licenses to its mainframe operating systems to developers of compatible mainframes and software, (ii) licensing its mainframe operating systems to purchasers of competitors' mainframe computers, and (iii) freely licensing its interoperability information and related intellectual property on reasonable and non-discriminatory terms, among other things, IBM has engaged in exclusionary conduct injuring competition in the relevant market for IBM-compatible mainframe computers.

112. Locked in consumers could not have known at the time of their initial investment in applications requiring IBM mainframe operating systems that IBM would discontinue its longstanding policy of licensing its mainframe operating systems to run on competing IBM-compatible mainframe computers.

113. IBM is seeking to extend and prolong its longstanding monopoly over IBM-compatible mainframe computers and mainframe operating systems and ensure that rival hardware and software platforms do not become viable alternatives to IBM's proprietary mainframe systems. IBM's conduct in the mainframe operating systems market significantly harms and threatens continuing harm to competition, offends established public policy as set forth in federal and state antitrust laws, is oppressive, and is substantially injurious to consumers. IBM has created insurmountable barriers to entry in the market for IBM-compatible mainframe computers and excluded competitors such as PSI from that market. The resulting elimination of competition in the market for IBM-compatible mainframe computers harms consumers by giving IBM monopoly pricing power and reducing innovation. The harm to such consumers from IBM's conduct outweighs any utility it might have.

114. The harm to competition is not limited to the relevant markets defined above. IBM's conduct is intended to, and does, harm competition in the markets for related markets such as the markets for enterprise server applications and storage devices.

115. Because of the lock-in, IBM and other companies selling IBM-compatible storage devices have been able to extract enormous premiums from customers. PSI's system allows customers to utilize industry-standard storage devices, which are substantially cheaper than IBM-compatible devices. IBM's refusal to license its operating systems is part of a larger scheme to protect these profits.

116. Similarly, IBM's refusal to license its operating systems and related intellectual property to PSI and its customers, and its tying of its operating systems to its mainframe computers, is part of a much larger scheme to maintain its enormous profits and profit margins generated from key applications, such as CICS, DB2, Websphere and IMS, that it licenses to mainframe customers. By conditioning licenses of its mainframes operating systems on the purchase or continued use of IBM mainframes, IBM is also able to lock its customers into using more of its applications, and more expensive versions of its applications, and to insulate its applications from further competition so that it can maintain hundreds of millions of dollars each year in additional monopoly profits. IBM

ultimately would face greater competition for these applications if they were available on PSI's open mainframe, as customers would have greater choice in determining on which platform to deploy their applications.

117. Refusing to license its operating systems and intellectual property to PSI and its customers in order to protect its storage and application products such as CICS, DB2 and Websphere from competition, and to maintain its high profits and profit margins on these products that are not covered by the purported intellectual property rights IBM is asserting against PSI, constitutes an unreasonable and unlawful extension of any legitimate intellectual property rights that IBM may have.

118. By discriminating in its software licensing based on whether or not the customer has chosen to use an IBM machine or a PSI machine, IBM has injured PSI as a competitor in the market for IBM-compatible mainframe computers. IBM's unlawful conduct has (a) prevented PSI from marketing and selling its competing computer system; (b) jeopardized PSI's funding and its relationship with prospective customers; (c) delayed PSI's entry into the market; and (d) allowed IBM to reap hundreds of millions of dollars in additional profits that otherwise would have been realized as cost savings by the governmental institutions, corporations, and academic institutions that would have purchased PSI's lower-priced products. Moreover, in addition to preventing PSI from selling its mainframes, IBM's unlawful conduct has prevented PSI from selling related applications and services, such as storage, technical support, maintenance and consulting services.

119. IBM itself has recognized that conduct such as that in which it is now engaging is anticompetitive and unlawful. As part of the United States Department of Justice's antitrust action against Microsoft, IBM testified that Microsoft had engaged in exclusionary conduct by discriminating against IBM with respect to the terms on which it made its Windows operating system available to IBM in retaliation against IBM's efforts to develop a competing operating system, OS/2. IBM subsequently pursued private antitrust claims against Microsoft, and obtained a \$775 million settlement of those claims without even filing a complaint. IBM's prior antitrust claims against Microsoft in the

markets for PC operating systems and personal computers are very similar to PSI's current claims based on IBM's exclusionary conduct in the markets for mainframe computers and mainframe operating systems. Indeed, PSI's claims are based on conduct that is even more blatantly exclusionary because IBM has expressly tied sales of its operating system to the purchase or continued use of an IBM mainframe and has refused to make its operating systems available at all to purchasers of PSI's mainframe computer products.

120. And in the European Union, IBM, through its trade organization ECIS, has taken legal positions completely contrary to its arguments in this case. For example, IBM currently contends, through its trade organization, that Microsoft should be compelled to timely supply full interoperability information to competitors for various products, including Microsoft Office, Windows, and Exchange programs, and that such information constitutes an essential facility. Again, IBM's conduct here is even more blatantly exclusionary than Microsoft's. Microsoft never disclosed interoperability information to expand the market and encourage the adoption of a Microsoft standard. IBM, by contrast, did just that: promoting a policy of reasonable, non-discriminatory licensing to help expand the market for its operating systems, applications, and mainframes.

FIRST COUNTERCLAIM: Monopolization in Violation of Section 2 of the Sherman Act, 15 U.S.C. § 2

121. PSI realleges and incorporates by reference the allegations of paragraphs 1 through and including 120 of its Second Amended Counterclaims.

122. IBM's (i) tying, (ii) leveraging of its monopoly over mainframe operating systems to maintain and prolong its monopoly over IBM-compatible mainframes, (iii) changing of its historic practices and course of dealing with respect to the develop of the standards and specifications embodied in the z/Architecture and its practice of reasonable and non-discriminatory licensing of intellectual property to maintain its monopoly power, (iv) denial of access to an essential facility, (v) interference with a prospective contractual

relationship, (vi) forcing customers to “upgrade” to newer versions of its operating system and discontinuing technical support of prior versions of its operating system in order to prevent those customers from using prior versions of its operating system on competing mainframe computer systems, (vii) denial of critical information regarding product interface information needed to develop mainframe computer systems that are compatible with those products in order to hinder and delay PSI’s ability to market its competing products, (viii) and/or other wrongful conduct as alleged hereinabove, individually and collectively constitute monopolization in violation of Section 2 of the Sherman Act, 15 U.S.C. § 2.

123. IBM has a monopoly and exercises market power in the relevant markets for IBM-compatible mainframe computers and mainframe operating systems.

124. IBM’s conduct as alleged herein has enabled it to unlawfully maintain, extend and prolong its monopoly in the market for IBM-compatible mainframes.

125. IBM’s purported bases for the anticompetitive acts alleged herein are pretextual and any pro-competitive benefits of such acts are outweighed by the harm to competition and consumers.

126. As a direct and proximate result of IBM’s tying, denial of access to an essential facility, interference with the potential sale of PSI, and other anticompetitive acts as alleged herein, PSI and consumers in the affected markets have suffered injuries, and competition in the affected markets has been suppressed and injured. If not enjoined, IBM’s conduct will cause further injury to the business and property of PSI and consumers in the affected markets.

SECOND COUNTERCLAIM: Attempted Monopolization in Violation of Section 2 of the Sherman Act, 15 U.S.C. § 2

127. PSI realleges and incorporates by reference the allegations of paragraphs 1 through and including 126 of its Second Amended Counterclaims.

128. IBM’s (i) tying, (ii) leveraging of its monopoly over mainframe operating systems to maintain and prolong its monopoly over IBM-compatible mainframes, (iii)

leveraging its market power to suppress competition in the markets for storage devices and software applications such as CICS, DB2, and Websphere; (iv) changing of its historic practices and course of dealing to maintain its monopoly power, (v) denial of access to an essential facility, (vi) interference with a prospective contractual relationship, (vii) forcing customers to “upgrade” to newer versions of its operating system and discontinuing technical support of prior versions of its operating system in order to prevent those customers from using prior versions of its operating system on competing mainframe computer systems, (viii) denial of critical information regarding the development path for IBM’s operating system products and the technical information needed to develop mainframe computer systems that are compatible with those products in order to hinder and delay PSI’s ability to market its competing products, (ix) and/or other wrongful conduct as alleged hereinabove, individually and collectively constitute attempted monopolization in violation of Section 2 of the Sherman Act, 15 U.S.C. § 2.

129. IBM has undertaken these acts with the specific intent of monopolizing the market for IBM-compatible mainframes.

130. There is a dangerous probability that IBM, unless it is restrained, will succeed in monopolizing the market for IBM-compatible mainframe computers.

131. There are no legitimate business justifications for IBM’s anticompetitive practices, and IBM’s purported bases for tying its operating system to its mainframe and refusing to enter into a patent license with PSI on IBM’s standard terms and conditions are pretextual.

132. As a direct and proximate result of IBM’s tying, monopoly leveraging, interference with a prospective contractual relationship, denial of access to an essential facility, and other anticompetitive acts as alleged herein, PSI and consumers in the affected markets have suffered injuries, and competition in the affected markets has been suppressed and injured. If not enjoined, IBM’s conduct will cause further injury to the business and property of PSI and of consumers in the affected markets.

THIRD COUNTERCLAIM: Violation of Section 1 of the

Sherman Act, 15 U.S.C. § 1

133. PSI realleges and incorporates by reference the allegations of paragraphs 1 through and including 132 of its Second Amended Counterclaims.

134. IBM's conditioning of the license and sale of its mainframe operating systems on the purchase or continued use of an IBM mainframe, and its refusal to license those operating systems for use on PSI mainframes, as alleged hereinabove, constitutes a tying arrangement and an unreasonable restraint of trade that is *per se* unlawful under Section 1 of the Sherman Act, 15 U.S.C. § 1.

135. Alternatively, IBM's conditioning of the license and sale of its mainframe operating systems on the purchase or continued use of an IBM mainframe, and its refusal to license those operating systems for use on PSI mainframes, as alleged hereinabove, constitutes a tying arrangement and an unreasonable restraint of trade that is unlawful under Section 1 of the Sherman Act, 15 U.S.C. § 1, under the rule of reason.

136. Mainframe operating systems and mainframe computers are separate products in separate markets, not substitutable for one another, can be sold or licensed separately, and are subject to separate consumer demand. Moreover, the licensing of a mainframe operating system necessarily implies a license to perform all of the functions required by the operating system, including any that may be validly patented.

137. By discriminating in its software licensing based on whether or not the customer has chosen to use an IBM machine or a PSI machine, IBM coerces consumers to purchase IBM's mainframe computers.

138. IBM has monopoly power in the market for IBM-compatible mainframe operating systems enabling it to appreciably restrain trade in the market for IBM-compatible mainframes, and to coerce the purchase of IBM's mainframe computers.

139. IBM's tying has affected and will continue to affect a not insubstantial volume of interstate commerce in the relevant markets.

140. PSI has been injured in its business and has suffered pecuniary harm as a consequence of IBM's tying and will continue to suffer such harm so long as IBM's tying persists.

141. As a direct and proximate result of IBM's tying, PSI and consumers in the affected markets have suffered injuries, and competition in the affected markets has been suppressed and injured. If not enjoined, IBM's conduct will cause further injury to the business and property of PSI and of consumers in the affected markets.

**FOURTH COUNTERCLAIM: Violation of Section 3 of the
Clayton Act, 14 U.S.C. § 15**

142. PSI realleges and incorporates by reference the allegations of paragraphs 1 through and including 141 of its Second Amended Counterclaims.

143. As alleged above, IBM conditions the license of its mainframe operating systems on the use of an IBM mainframe, in violation of Section 3 of the Clayton Act, 15 U.S.C. § 15. The effect of these arrangements has been to substantially lessen competition in the relevant markets for mainframe computers.

144. There is no legitimate business justification for IBM's anti-competitive practices and any purported legitimate business justifications are mere pretexts.

145. IBM's anticompetitive practices have proximately caused damage to PSI in an amount to be proven at trial.

**FIFTH COUNTERCLAIM: Violation of California Business and Professions Code
§§ 17200 et seq. (Anticompetitive Practices)**

146. PSI realleges and incorporates by reference the allegations of paragraphs 1 through and including 145 of its Second Amended Counterclaims.

147. IBM has engaged in unlawful or unfair business acts and practices within the meaning of California Business and Professions Code §§ 17200 et seq. by, among other things, its tying arrangements, denial of access to an essential facility, exclusionary

conduct, monopolization, attempted monopolization, and/or other anticompetitive acts as alleged herein.

148. IBM's conduct as alleged hereinabove threatens an incipient violation of an antitrust law, or violates the policy or spirit of an antitrust law.

149. PSI and consumers in the affected markets, including in California, have suffered and will continue to suffer injury and loss of money or property as a result of IBM's acts of unfair competition as alleged herein. If not enjoined, IBM's conduct will cause further injury to PSI and consumers.

SIXTH COUNTERCLAIM: Violation of California Business and Professions Code §§ 17200 et seq. (Other Unfair and Fraudulent Acts)

150. PSI realleges and incorporates by reference the allegations of paragraphs 1 through and including 149 of its Second Amended Counterclaims.

151. IBM has engaged in unfair or fraudulent business acts and practices within the meaning of California Business and Professions Code § 17200 by, among other things, (i) misrepresenting to PSI and the public that it practices reasonable non-discriminatory licensing; (ii) representing to PSI in 2001, 2003 and 2004 that it would enter into a patent license with respect to the OS/390 patents on a nondiscriminatory basis and on standard terms and conditions, (iii) using pretext of purported patent infringement to renege on its promises made over a number of years as alleged above, (iv) requiring that PSI disclose confidential, proprietary information on a non-confidential basis before licensing negotiations could begin, (v) intentionally delaying responses to licensing requests, (vi) changing its products and support without need or notice in order to exclude PSI, and (vii) other false and misleading statements and unfair conduct, all of which IBM knew PSI and consumers were relying on to its detriment.

152. IBM's conduct as alleged hereinabove is oppressive, offends public policy, and/or is injurious to consumers.

153. PSI and consumers in the affected markets, including in California, have suffered and will continue to suffer injury and loss of money or property as a result of

IBM's unfair or fraudulent business acts and practices as alleged herein. If not enjoined, IBM's conduct will cause further injury to PSI and consumers.

SEVENTH COUNTERCLAIM: Violation of Section 349-50 of New York General Business Law

154. PSI realleges and incorporates by reference the allegations of paragraphs 1 through and including 153 of its Second Amended Counterclaims.

155. IBM has engaged in deceptive acts and practices within the meaning of Sections 349-50 of New York General Business Law by, among other things, (i) misrepresenting to PSI and the public that it practices reasonable non-discriminatory licensing; (ii) representing to PSI in 2001, 2003 and 2004 that it would enter into a patent license with respect to the OS/390 patents on a nondiscriminatory basis and on standard terms and conditions, (iii) using pretext of purported patent infringement to justify tying, (iv) changing its products and support without need or notice in order to exclude PSI and harm consumers without disclosing this to customers, (vi) denigrating PSI and its products to consumers; and (vii) other false and misleading statements.

156. IBM's conduct as alleged hereinabove causes consumer injury and harm to the public interest because (a) consumers have been deceived into purchasing IBM's products based on its reputation and representations of openness and fairness, and (b) IBM's conduct has fomented its monopoly and caused higher prices in the mainframe computers by hindering and delaying PSI's entry into the market.

157. PSI and consumers in the New York have suffered and will continue to suffer injury and loss of money or property as a result of IBM's unfair or fraudulent business acts and practices as alleged herein. If not enjoined, IBM's conduct will cause further injury to PSI and consumers.

EIGHTH COUNTERCLAIM: Tortious Interference with a Prospective Economic Advantage

158. PSI realleges and incorporates by reference the allegations of paragraphs 1 through and including 157 of its Second Amended Counterclaims.

159. In 2005 and 2006, PSI had a legitimate prospective contractual relationship with a large technology firm, which was interested in purchasing PSI for millions of dollars.

160. In September 2006, that company signed a letter of intent to purchase PSI for millions of dollars.

161. Because of IBM's unlawful policy of conditioning the sale of its mainframe operating systems to the purchase of an IBM mainframe, and/or the refusal to license its product on an HP/PSI mainframe, the would-be purchaser backed out of the deal.

162. Upon information and belief, IBM reasonably foresaw the acquisition of PSI, acted with intent to prevent an acquisition, and acted with the intent of suppressing competition in the IBM-compatible mainframe market, thus creating an unlawful restraint of trade.

163. As a direct and proximate result of IBM's tortious comment, PSI suffered injury and loss of money.

NINTH COUNTERCLAIM: Promissory Estoppel

164. PSI realleges and incorporates by reference the allegations of paragraphs 1 through and including 163 of its Second Amended Counterclaims.

165. Until 2006, IBM had a publicly announced policy of reasonable, non-discriminatory patent licensing on its website.

166. In letters dated January 12, 2001, February 15, 2001, and March 9, 2001, IBM represented that it would license intellectual property that had previously been licensed to Amdahl and others on similar terms.

167. In March 2003, after being informed by PSI that it needed assurances regarding licensing, IBM represented to PSI that, "[u]nder our current practice, IBM would be willing to enter into a patent license with PSI."

168. In May 2003, IBM granted PSI a license to develop OS/390 compatible mainframes, reinforcing PSI's reasonable belief that IBM would grant a patent license for at least those patents that IBM believed were necessary to deliver an OS/390 compatible mainframe.

169. In Spring 2004, IBM extended that development license, fully recognizing that PSI was building an IBM-compatible mainframe.

170. In May 2004, IBM engaged in patent license discussions with PSI. In those discussions, IBM again represented to PSI that IBM would provide a nondiscriminatory patent license to PSI on standard terms and conditions.

171. IBM was aware of the importance to PSI's business of licensing patents, and IBM made the promises and representations alleged above with the knowledge that PSI was relying on them.

172. PSI reasonably, foreseeably, justifiably, and to its detriment, relied on IBM's representations and promises, within the past two years, by, among other things, obtaining more than \$20 million in venture capital financing and expending that money on development of its computer system, which PSI is now unable to market and sell as a result of IBM's actions as alleged herein.

173. IBM has failed and refused to perform its promises alleged above.

174. PSI will perform, or is excused from performing as a result of IBM's breaches, all of its obligations under the contract.

175. Particularly in light of the other behavior alleged herein, it would be unconscionable not to enforce IBM's promises. IBM, with sole control over what it considers to be essential facilities, made promises and delayed definitive responses while aware that PSI was building a business model and obtaining financing based on those promises. Ultimately, it attempted to force PSI to disclose confidential, proprietary information—while signing an unconscionable and nonsensical agreement that such information was not confidential and could be used by IBM in any manner that it pleased—as a precondition to further negotiations. After PSI eventually acquiesced to that agreement, IBM revealed its true intent not to license any patents to PSI.

176. The terms of the promise were and are just and reasonable, and provide for adequate consideration, in that PSI will undertake the same terms and conditions as IBM has accepted from other parties to its license agreements and patent licenses.

177. PSI has no adequate remedy at law, in that IBM's continuing breach and its failure to perform in the future cannot be adequately compensated for in money damages. Accordingly, PSI is entitled to specific performance of the contract as alleged herein. In the alternative, IBM is estopped from asserting infringement of intellectual property that IBM represented that it would license.

TENTH COUNTERCLAIM: Declaratory Judgment of Patent Non-infringement

178. PSI realleges and incorporates by reference the allegations of paragraphs 1 through and including 177 of its Second Amended Counterclaims.

179. Plaintiff purports to be the owner of the U.S. Patent No. 6,009,261 ("the '261 patent"), U.S. Patent No. 5,953,520 ("the '520 patent"), U.S. Patent No. 5,696,709 ("the '709 patent"), U.S. Patent No. 5,825,678 ("the '678 patent"), U.S. Patent No. 5,687,106 ("the '106 patent"), U.S. Patent No. 5,987,495 ("the '495 patent"), U.S. Patent No. 6,775,789 ("the '789 patent"), U.S. Patent No. 5,414,851 ("the '851 patent"), U.S. Patent No. 6,971,002 ("the '002 patent") and U.S. Patent No. 6,654,812 ("the '812 patent")—collectively, the "Asserted Patents."

180. Plaintiff has alleged that PSI has infringed the Asserted Patents.

181. An actual controversy, within the meaning of 28 U.S.C. §§ 2201 and 2202, exists between Plaintiff, on the one hand, and PSI, on the other hand, as to the non-infringement of the Asserted Patents.

182. PSI has not infringed, contributed to the infringement of, or induced the infringement of any valid claim of the Asserted Patents, and is not liable for infringement thereof.

183. All PSI methods, systems, apparatus, and/or products that are accused of infringement have substantial uses that do not infringe and therefore cannot induce or contribute to the infringement of the Asserted Patents. Moreover, PSI does not intend or

have knowledge that its customers will use its products in a manner that infringes the Asserted Patents.

184. PSI has not directly infringed any valid claim of the '261 patent.
185. PSI has not directly infringed any valid claim of the '520 patent.
186. PSI has not directly infringed any valid claim of the '709 patent.
187. PSI has not directly infringed any valid claim of the '678 patent.
188. PSI has not directly infringed any valid claim of the '106 patent.
189. PSI has not directly infringed any valid claim of the '495 patent.
190. PSI has not directly infringed any valid claim of the '789 patent.
191. PSI has not directly infringed any valid claim of the '851 patent.
192. PSI has not directly infringed any valid claim of the '002 patent.
193. PSI has not directly infringed any valid claim of the '812 patent.
194. PSI has not induced infringement of any valid claim of the '261 patent.
195. PSI has not induced infringement of any valid claim of the '520 patent.
196. PSI has not induced infringement of any valid claim of the '709 patent.
197. PSI has not induced infringement of any valid claim of the '678 patent.
198. PSI has not induced infringement of any valid claim of the '106 patent.
199. PSI has not induced infringement of any valid claim of the '495 patent.
200. PSI has not induced infringement of any valid claim of the '789 patent.
201. PSI has not induced infringement of any valid claim of the '851 patent.
202. PSI has not induced infringement of any valid claim of the '002 patent.
203. PSI has not induced infringement of any valid claim of the '812 patent.
204. PSI has not contributed to infringement of any valid claim of the '261 patent.
205. PSI has not contributed to infringement of any valid claim of the '520 patent.
206. PSI has not contributed to infringement of any valid claim of the '709 patent.

207. PSI has not contributed to infringement of any valid claim of the '678 patent.

208. PSI has not contributed to infringement of any valid claim of the '106 patent.

209. PSI has not contributed to infringement of any valid claim of the '495 patent.

210. PSI has not contributed to infringement of any valid claim of the '789 patent.

211. PSI has not contributed to infringement of any valid claim of the '851 patent.

212. PSI has not contributed to infringement of any valid claim of the '002 patent.

213. PSI has not contributed to infringement of any valid claim of the '812 patent.

ELEVENTH COUNTERCLAIM: Declaratory Judgment of Patent Invalidity

214. PSI realleges and incorporates by reference the allegations of paragraphs 1 through and including 213 of its Second Amended Counterclaims.

215. An actual controversy, within the meaning of 28 U.S. C. §§ 2201 and 2202, exists between plaintiff, on the one hand, and PSI, on the other hand, as to the invalidity of the Asserted Patents.

216. On information and belief, the claims of the Asserted Patents are invalid for failing to comply with the provisions of the Patent Laws, Title 35 U.S.C., including without limitation one or more of 35 U.S.C. §§ 101, 102, 103, and 112 and the doctrine of double patenting.

JURY DEMAND

PSI demands a jury on all issues triable to a jury.

PRAYER FOR RELIEF

Wherefore, PSI prays:

- (1) That the Court enter a judgment that PSI has not infringed, contributorily infringed or induced the infringement of any claim of the Asserted Patents;
- (2) That the Court enter a judgment that the Asserted Patents are invalid;
- (3) That the Court enter a judgment that IBM take nothing by reason of its claims against PSI;
- (4) That the Court enter a judgment that IBM has violated sections 1 and 2 of the Sherman Act and section 3 of the Clayton Act, Section 17200 of the California Business and Professions Code, Section 349-50 of New York General Business Law;
- (5) That the Court award PSI treble damages and attorneys' fees under the Sherman Act and section 4 of the Clayton Act, 15 U.S.C. § 15;
- (6) That, should the Court determine any claims of the patents-in-suit are infringed, the Court award injunctive relief to PSI directing IBM to (a) license its operating systems for use on PSI/HP mainframes on nondiscriminatory terms; and (b) enter into a reasonable, non-discriminatory patent licensing agreement with PSI;
- (7) That the Court award PSI specific performance of IBM's promise to license its OS/390 related patents on the same terms as extended to others;
- (8) That the Court award PSI damages for IBM's tortious interference with prospective contractual relations;
- (9) That the Court declare this an exceptional case under 35 U.S.C. §285 and award PSI it reasonable attorneys' fees; and
- (10) That the Court award PSI such other and further relief which the Court deems proper.

Dated: February 8, 2008

SUSMAN GODFREY L.L.P.

By: /s/ Stephen D. Susman

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CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing document, DEFENDANTS AND COUNTERCLAIM PLAINTIFFS PLATFORM SOLUTIONS, INC.'S AND T3 TECHNOLOGIES, INC.'S ANSWER AND AFFIRMATIVE DEFENSES TO INTERNATIONAL BUSINESS MACHINES CORPORATION'S SECOND AMENDED COMPLAINT, has been served on this 8th day of February, 2008, via electronic mail:

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